



Documentation of a Natural Event Due to High Winds March 12, 2005 Burbank, Washington

05-02-015
August 2005

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Documentation of a Natural Event Due to High Winds March 12, 2005 Burbank, Washington

Prepared by:

Washington State Department of Ecology
Air Quality Program

August 2005



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Summary

On March 12, 2005, the Tapered Element Oscillating Monitor (TEOM) in Burbank, Washington measured a concentration of particulate matter 10 microns and smaller in size (PM₁₀) of 203 µg/m³. This concentration exceeded the primary 24-hour PM₁₀ National Ambient Air Quality Standard (NAAQS) of 150 µg/m³.

The Washington State Department of Ecology (Ecology) has determined that the Burbank exceedance was due to a natural event caused by high winds. Thus, this data point should be excluded from assessment of the attainment status for the area. Ecology flagged the data point for March 12, 2005, in the AIRS database maintained by the U.S. Environmental Protection Agency (EPA) to indicate that a natural event was involved. This documentation is being submitted to EPA in support of the data flag for EPA's acknowledgement and flagging of the data point.

EPA's Natural Events Policy

EPA issued the policy on "Areas Affected by PM-10 Natural Events" (hereafter referred to as Natural Events Policy or NEP) on May 30, 1996. EPA's reasons for issuing the NEP are described in the following terms:

In issuing the natural events policy, EPA now believes that, under certain circumstances, it is appropriate to again exclude PM-10 air quality data that are attributable to uncontrollable natural events from the decisions regarding an area's non-attainment status.

Under the policy, ambient PM₁₀ concentrations raised by unusually high winds are treated as uncontrollable natural events when the dust originates from:

- ③ non-anthropogenic (non-human caused) sources, or
- ③ contributing anthropogenic (human caused) sources controlled with best available control measures (BACM).

After natural events cause the PM₁₀ concentration to violate the PM₁₀ NAAQS, the NEP requires a state to develop a natural events action plan (NEAP) to deal with future exceedances. The NEP specifies that the NEAP is available for public review and comment. A state submits the NEAP to EPA for review and comment.

Under the NEP, when a state has reason to believe that natural events have caused monitored exceedances of the PM₁₀ standard, the state is responsible for establishing a clear causal relationship between the natural event and the exceedance. Documentation of the natural event should be sufficient to demonstrate that the natural event occurred and that it impacted a particular monitoring site. The documentation should provide evidence that concentrations at the monitoring site would not have exceeded the PM₁₀ standard in the absence of a natural event.

Ecology's Response to High Wind Events on the Columbia Plateau

During the late 1980s and early 1990s, a large number of exceedances of the 24-hour standard for PM₁₀ were recorded in Spokane, Kennewick, and Wallula, Washington. Detailed examination of these exceedances showed a close correlation to high wind events. Upwind agricultural fields were identified as the chief source of the windblown dust. Accordingly, Ecology developed the *Natural Events Action Plan for High Wind Events in the Columbia Plateau* in March 1998, to deal with high wind natural events in eastern Washington.

EPA's NEP identifies various criteria states are expected to address in a NEAP, including a commitment to re-evaluate the NEAP every five years. Ecology completed a re-evaluation and submitted a revised NEAP to EPA in June, 2003. The Columbia Plateau NEAP continues to address the NEP by providing for:

- ⌚ Notification of citizens when air quality is likely to be impaired due to high wind events.
- ⌚ Advice to citizens on steps to minimize exposure.
- ⌚ Development of a program to identify and implement controls for anthropogenic sources of windblown dust in the Columbia Plateau.

As well, based on the re-evaluation, several changes were incorporated into the 2003 NEAP. Significant changes include a more refined definition for a high wind event and a finding that BACM is in place throughout the Columbia Plateau.

The 2003 NEAP refined the definition of a high wind event for Washington State in accordance with the provisions of the NEP that allows the states to determine this definition. This provision recognizes the multiple variables that affect the wind erosion processes that result in windblown dust and the generation and transport of PM₁₀.

"A high wind event occurs when the wind entrains and suspends dust to the extent that concentrations of PM₁₀ are elevated. This typically occurs when the average hourly wind speed at 33 ft is 18 miles per hour or greater for two or more hours; or in excess of 13 miles per hour for two hours or more hours when conditions of higher susceptibility to wind erosion exist. A high wind event that exceeds the PM₁₀ standard is a natural event."

The Columbia Plateau NEAP documents the research and explains the logic behind this "high wind event" definition. The high wind event definition necessarily includes the concept that the intensity of the wind event is a combination of wind speed and significant duration (sustained wind). The state of Washington finds that windblown dust from agricultural fields is still a significant contributing source of PM₁₀ exceedances throughout the Columbia Plateau. The soil

is very fine with low organic content. This, coupled with low precipitation weather patterns, leads to very dry soil that is highly susceptible to wind erosion.

The 2003 NEAP identified BACM for agricultural fields as conservation programs and practices that reduce or minimize wind erosion. Specifically, this means USDA Conservation Title Programs supplemented by incentive-based implementation of wind-erosion conservation practices or best management practices (BMPs).

Washington State evaluated BACM implementation for agricultural fields in the 2003 NEAP. Based on the evaluation, Washington State views these levels of wind erosion control as sufficient to fulfill BACM criterion of the NEP. A 2003 Annual Status Report regarding BACM implementation is found in Appendix B.

Evaluation of the March 12, 2005 Exceedance at Burbank, Washington

1. Burbank PM₁₀ Monitors:

The Burbank federal reference method (FRM) monitor began monitoring on December 25, 2002. Burbank became the replacement site for the Wallula FRM site after an agreement with the landowner scheduled that site for termination on October 31, 2003. In addition to the FRM PM₁₀ monitor, a continuous, PM₁₀ Tapered Element Oscillating Monitor (TEOM) and a meteorological tower were set up at the Burbank site.

Evaluation of monitoring data indicates that the Burbank monitors measure the same air mass as the now discontinued Wallula monitor. The Burbank monitors also provide the added benefit of measuring air quality in the part of the NAA where most of the population lives. Therefore, Burbank was chosen as the replacement site and the PM₁₀ FRM and TEOM monitors were chosen to track continuing PM₁₀ attainment in the Wallula NAA. EPA and Ecology have determined that the PM₁₀ TEOM is an FRM-equivalent monitoring system.

2. Burbank PM₁₀ Data:

The Burbank FRM monitor operates on a 1-in-3-day schedule. In accordance with the 2005 operating schedule, the monitor did not operate on March 12, 2005. FRM PM₁₀ data for 2004, as well as data for January and February 2005, are found in Appendix A.

The 2004 monthly maxima ranged from a low of 13.8 µg/m³ in February, to a high of 32.8 µg/m³ in July. The monthly averages for January and February 2005 were 10 and 22 µg/m³, respectively. The Burbank FRM recorded one exceedance of the standard in 2004, due to windblown dust. On April 27, 2004 the 24-hour PM₁₀ concentration measured 249 µg/m³. In accordance with the NEP, Ecology submitted natural event documentation to EPA on October 21, 2004. EPA concurred with Ecology's finding in a letter dated November 30, 2004.

The Burbank PM₁₀ TEOM operates continuously and Ecology began submitting quality assured data to the Air Quality System in July 2004. TEOM PM₁₀ data for 2004, as well as data for January and February 2005, are found in Appendix A. Monthly maxima ranged from a low of 10.1 µg/m³ in December, to a high of 33.2 µg/m³ in July. The monthly averages for January and February were 10 and 22 µg/m³, respectively. The Burbank TEOM recorded no exceedances of the standard in 2004.

3. Burbank Meteorological Data:

Ecology operates meteorological equipment co-located with Ecology's PM₁₀ monitor in Burbank, Washington. The data, found in Appendix B, shows the winds were less than about 10 mph, were generally disorganized, and were from the west through north from about 2000, March 11, 2005 to about 0900, March 12, 2005. Winds became more organized and from the north-northwest starting at about 1000. At 1000 the monitor measured 20 mph winds. From 1000 to 1400 on March 12, 2005, wind speeds ranged from 19 to 24 mph. Winds remained out of the north-northwest throughout this period. Gust measurements are not included in Ecology's suite of meteorological data at Burbank.

The data shows the winds at Burbank, Washington clearly met Ecology's definition for a high wind event.

A high wind event occurs when the wind entrains and suspends dust to the extent that concentrations of PM₁₀ are elevated. This occurs when the average hourly wind speed at 10 m is 18 miles per hour or greater for two or more hours; or in excess of 13 miles per hour for two or more hours when conditions of higher susceptibility to wind erosion exist (see attachment A1). A high wind event that exceeds the PM₁₀ standard is a natural event.

3.1 Wind Observations

Table 1. Select Wind Observations for Burbank, Washington, March 12, 2005

Time (PST)	Wind Direction	Wind Speed (mph)
1000	342 (NNW)	20
1100	345 (NNW)	24
1200	347 (NNW)	23
1300	346 (NNW)	19
1400	353 (N)	19

Wind speeds and wind direction at Burbank, Washington from 2000 (PST) on March 11, 2005 to 0000 (PST) on March 13, 2005 are displayed in Figure 1.

3.2. Precipitation Prior to March 12, 2005:

1. Table 2 summarizes precipitation data from several reporting meteorological sites in the greater Burbank, Washington area. Washington State University's Public Agricultural Weather

System (PAWS) and the National Weather Service (NWS) operate these sites. The sites are generally located in an arc ranging from west-northwest through north, upwind of Burbank, Washington, with respect to the direction of the prevailing high winds on March 12, 2005. None

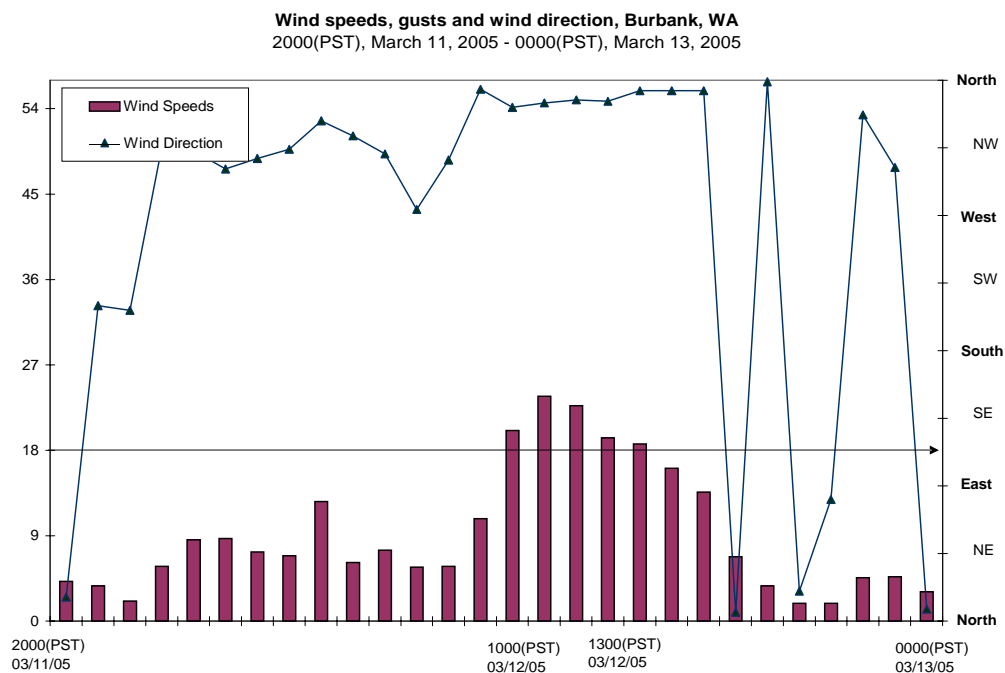


Figure 1

Table 2. Precipitation Prior to March 12, 2005

STATION	9th	10th	11th	72 hour total	12th
Pasco (NWS)	0	0	0	0	0
CBC Pasco (PAWS)	0	0	0	0	0
Kennewick (PAWS)	0	0	0	0	0
Mathews Corner (PAWS)	0	0	0	0	0
WSU Tri-Cities (PAWS)	0	0	0	0	0

of the sites is more than about 30 miles from Burbank, Washington. Appendix B contains a map showing the location of each site as well as the precipitation data.

Ecology analyzed data from the five sites to assess the general vulnerability of soils to high winds. The data show the area west-northwest through north (upwind on March 12, 2005) of Burbank recorded no precipitation either 72 hours prior to or on March 12, 2005.

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2. Ecology also compared February and March 1 – 12, 2005 precipitation data from the four Public Agriculture Weather System (PAWS) stations with mean precipitation for the same time period, over the past 10-15 years (Table 3). Long-term data is not readily available from NWS stations. For this reason, the PAWS CBC Pasco, Kennewick, Mathews Corner and WSU Tri-Cities sites were chosen as representative sites to include in this assessment.

The period of record for each site is found in Appendix B. All sites report February 2005 measurable precipitation well below the mean for the month of February 2005. Moreover, the sites report no precipitation for the period of March 1 to March 12, 2005.

Table 3. February – early March 2005 precipitation compared to mean precipitation

Station	Feb. Precip	Feb. 2005	Percent of mean	Mar. 1 – 12, 2005 Precip	Percent of mean
CBC Pasco	.8	.05	.06	0	80
Kennewick	.8	.03	.04	0	80
Mathews Corner	.7	.00	0	0	80
WSU Tri-Cities	.9	.07	.08	0	80

The data show the area west-northwest through north (upwind on March 12, 2005) of Burbank was especially dry in February 2005 when compared to mean February precipitation. Moreover, sites analyzed show conditions were sufficiently dry to generate windblown dust 72 hours prior to the high winds on March 12, 2005. Such dry conditions leave soils vulnerable to wind erosion, particularly in light of the five consecutive hours of recorded high winds.

BACM Implementation

The 2003 NEAP determined BACM is implemented in the Columbia Plateau based on 68 percent use of conservation practices. BACM for agricultural fields is defined as USDA Conservation Title Programs supplemented by incentive-based implementation of wind erosion conservation practices or BMPs. In short, the BACM definition recognizes the critical role of agricultural agencies in defining and instituting BACM on the Columbia Plateau. The NEAP acknowledges the combined expertise of these agencies and relies on the various programs of these agencies in implementing the conservation practices that constitute BACM.

For defining BACM, the NEAP uses the USDA's Conservation Reserve Program (CRP) and the wind erosion BMPs encouraged by NRCS and/or the Columbia Plateau Wind Erosion /Air Quality Project (referred to as the CP3). Use of these practices is tracked by the Conservation Technology Information Center's (CTIC) Core 4 program. The CTIC's Core 4 program tracks conservation tillage (No-Till, Ridge-Till, Mulch-Till) and conventional tillage (0-15% and 15-30% residue) practices and CRP enrollment on a county by county basis.

A 2004 Annual Status Report regarding BACM implementation (Appendix C) shows the levels of CRP and BMP use have increased to 78 percent in the priority counties of the Columbia

Plateau. Seventy-eight percent of the total farmable acres in these counties are now part of a USDA conservation program, use one of the minimum till practices, or contain 15-30% residue.

Washington State finds this level of CRP and BMP implementation fulfills BACM criteria. A full discussion on Ecology's BACM definition and tracking mechanism may be found in the revised NEAP.

Findings

The meteorological data from Burbank, Washington shows that March 12, 2005 was characterized by windy conditions. Wind speeds ranged from 19 to 24 mph for five consecutive hours. The winds meet Ecology's high wind event definition.

Much of the area lying upwind of Burbank, Washington with respect to the prevailing winds received well below mean precipitation during February, 2005; none of the sites reviewed report any precipitation from March 1 to 12, 2005. Such conditions are consistent with areas being susceptible to windblown dust. Moreover, Ecology finds that BACM was implemented on agricultural fields.

Under the dry conditions so common in this area, the windy conditions are likely to raise dust that led to the monitored high PM₁₀ levels. Therefore, the monitored PM₁₀ concentrations of 203 µg/m³ at Burbank, Washington on March 12, 2005 are reasonably attributed to a natural event due to high winds.

APPENDIX A

2004 and January-February, 2005
Federal Reference and
Tapered Element Oscillating Monitor Data

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

CAS NUMBER: May. 2, 2005
LATITUDE: 46.199901
LONGITUDE: -119.008329
UTM ZONE: 11
UTM NORTHING: 5118011
UTM EASTING: 345048
ELEVATION-MSL: 9999
PROBE HEIGHT: 6

(81102) PM10 Total 0-10um STP
SITE ID: 53-071-0006 POC: 1
COUNTY: (071) Walla Walla
CITY:(00000) Not in a city
SITE ADDRESS: 755 MAPLE STREET, BURBANK WA
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (53) Washington
AOCR: (230) SOUTH CENTRAL WASHINGTON
URBANIZED AREA:0000) NOT IN AN URBAN AREA
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

SUPPORT AGENCY: (1136) Washington State Department Of Ecology
MONITOR TYPE: OTHER
COLLECTION AND ANALYSIS METHOD: (063) HI-VOL SA/GMW-1200 GRAVIMETRIC
REPORTING ORG: (1136) Washington State Department Of Ecology

REPORT FOR: 2004

DURATION: 24 HOURS
UNITS: UG/CU METER (25 C)
MIN DETECTABLE: 4

Day	MONTH JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1	17		17					26			35	18
2		5	8			30	34	21	29	29	36	11
3												
4												
5												
6	15	16	24							23		
7							41		18	7	29	2
8				22								
9								36				
10	50		26				15				27	5
11		17		35						26	22	
12												
13	24		18			47	46				16	8
14												
15		21								36		
16	15		24			26	41				14	24
17												
18		12		5					9	10		
19	24		29									
20							16					12
21			41						16			
22	16							7				
23							42				30	20
24		12								7		
25	8											
26						22	27				9	25
27												
28			10	P 249 A				15	50	26		
29						34					18	14
30									37			
31												

NO.: 8 6 9 4 0 5 8 5 6 8 10 10
MAX: 50. 21. 41. 249. 47. 46. 36. 50. 36. 36. 36. 25.
MEAN: 21.1 13.8 21.9 77.8 31.8 32.8 21.0 26.5 20.5 23.6 13.9
ANNUAL OBSERVATIONS: 79 ANNUAL MEAN: 25.1 ANNUAL MAX: 249.
Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk (***) indicates that the regi
1 Values marked with 'P' exceed the PRIMARY STANDARD of: 155
1 Values marked with 'S' exceed the SECONDARY STANDARD of: 155

Annual Parameter Report
Reporting Year: 2005
Time of Report: 07/05/05 12:53

STATION: BURBANK MAPLE
SITE: 0710006
Parameter: PM10

AIRS	:	Parameter Code:	81102	Method Code:	063	Units Code:	001	Decimal Positioner:	0
SAROAD	:	Parameter Code:	81102	Method Code:	63	Units Code:	01	Units:	

[illegible]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

May. 2, 2005

(81102) PM10 Total 0-10um STP
SITE ID: 53-071-0006 POC: 3
COUNTY: (071) Walla Walla
CITY: (00000) Not in a city
SITE ADDRESS: 755 MAPLE STREET, BURBANK WA
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (53) Washington
AQCR: (230) SOUTH CENTRAL WASHINGTON
URBANIZED AREA: (0000) NOT IN AN URBAN AREA
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

CAS NUMBER:
LATITUDE: 46.199901
LONGITUDE: -119.008329
UTM ZONE: 11
UTM NORTHING: 5118011
UTM EASTING: 345048
ELEVATION-MSL: 9999
PROBE HEIGHT:

SUPPORT AGENCY: (1136) Washington State Department Of Ecology
MONITOR TYPE: OTHER
COLLECTION AND ANALYSIS METHOD: (079) INSTRUMENTAL-R&P SA246B-INLET TEOM
REPORTING ORG: (1136) Washington State Department Of Ecology

REPORT FOR: JULY 2004

DURATION: 1 HOUR
UNITS: UG/CU METER (25 C)
MIN DETECTABLE: -50

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMU
1	37	34	28	26	23	27	24	23	26	24	18	12	13	15	12	11	19	26	24	22	53	63	37	30	24	63.
2	33	28	22	28	23	34	18	23	39	25	15	22	27	35	49	33	56	41	24	32	46	30	30	33	24	56.
3	16	20	11	17	11	12	13	7	8	8	5	3	5	4	12	14	14	22	17	16	24	21	21	45	24	45.
4	25	14	36	19	10	18	16	6	12	13	14	11	15	15	14	15	14	19	22	28	81	92	83	105	24	105.
5	82	54	27	23	20	28	18	24	12	14	17	14	22	14	13	22	19	17	37	46	81	63	57	27	24	82.
6	19	21	19	26	26	27	25	30	28	15	20	22	11	27	15	22	21	31	89	46	11	11	4	3	24	89.
7	14	26	14	6	10	5	11	32	24	20	20	40	43	59	14	14	20	67	152	40	24	20	18	19	24	152.
8																										0
9	24	24	27	28	32	41	27	21	21	18	22	10	20	22	27	31	38	40	26	25	50	41	22	23	24	50.
10	19	17	12	15	16	12	16	12	19	5	12	18	23	22	35	54	31	42	19	26	24	22	26	21	24	54.
11	21	32	12	15	16	18	10	5	12	5	10	7	7	10	14	9	10	6	24	23	66	28	25	19	24	66.
12	12	6	13	15	17	23	30	35	46	27	35	42	32	23	27	47	61	77	95	101	60	30	20	25	24	101.
13	29	40	40	25	24	74	108	49	41	44	41	41	53	31	32	36	28	73	120	118	74	57	40	24	120.	
14	33	40	32	27	37	45	43	26	58	47	43	36	61	59	56	47	32	31	46	81	89	77	47	54	24	89.
15	48	39	33	30	37	49	39	40	30	33	23	16	14	5	23	17	22	42	35	28	34	28	42	20	24	49.
16	51	19	26	29	18	42	26	17	18	17	28	21	12	24	7	31	23	32	41	91	75	90	45	24	24	91.
17	26	23	47	29	23	30	39	50	45	58	41	40	39	53	29	21	43	49	41	60	105	65	21	31	24	105.
18	72	28	49	29	19	25	44	16	38	25	25	26	17	17	29	14	23	5	77	37	56	30	46	37	24	77.
19	29	16	18	16	27	37	67	37	29	20	21	15	24	18	16	62	17	18	12	25	6	6	9	10	24	67.
20	10	12	24	19	19	12	11	15	6	8	9	8	17	7	8	17	28	38	16	50	37	14	17	14	24	50.
21	19	26	22	16	24	67	24	15	25	12	8	11	19	14	15	19	25	28	30	58	60	58	61	52	24	67.
22	13	20	21	13	18	31	42	56	32	20	25	42	40	33	15	44	40	39	80	63	36	21	21	39	24	80.
23	40	29	46	33	29	44	38	48	34	29	41	55	44	28	25	14	53	56	57	79	67	73	80	68	24	80.
24	53	59	42	28	19	31	25	48	18	47	37	36	34	36	36	62	33	46	27	49	98	89	66	19	24	98.
25	17	14	23	30	29	46	54	24	25	29	18	12	10	29	19	14	66	64	26	28	30	39	74	26	24	74.
26	20	18	30	15	23	31	23	25	18	7	31	17	16	20	14	28	35	48	25	47	95	85	30	21	24	95.
27	52	50	36	35	24	16	43	50	60	57	60	45	40	48	46	58	29	48	73	78	125	91	74	21	24	125.
28	37	19	27	39	48	59	64	57	74	60	42	42	32	31	32	45	44	97	72	124	87	42	36	24	124.	
29	51	23	28	29	30	56	69	44	30	41	38	33	36	25	48	57	42	10	84	85	102	60	33	56	24	102.
30	48	45	51	19	37	36	29	30	26	25	20	9	53	21	25	25	18	38	26	38	56	37	63	16	24	63.
31	26	25	23	11	11	40	23	23	7	20	16	30	28	12	38	40	37	21	113	35	53	34	18	33	24	113.
NO.:	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
MAX:	82.	59.	51.	35.	39.	74.	108.	64.	60.	74.	60.	55.	61.	59.	56.	62.	66.	77.	152.	120.	125.	92.	83.	105.		
AVG:	32.5	27.4	28.0	22.6	23.0	33.5	33.8	29.8	28.1	26.2	25.8	24.5	26.8	26.0	24.8	30.2	31.7	35.8	50.3	51.0	62.9	49.3	39.6	32.2		

MONTHLY OBSERVATIONS: 720 MONTHLY MEAN: 33.2 MONTHLY MAX: 152.
Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk (***) indicates that the region has

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

CAS NUMBER: May. 2, 2005

(81102) PM10 Total 0-10um STP
SITE ID: 53-071-0006 POC: 3
COUNTY: (071) Walla Walla
CITY:(00000) Not in a city
SITE ADDRESS: 755 MAPLE STREET, BURBANK WA
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (53) Washington
AQCR: (230) SOUTH CENTRAL WASHINGTON
URBANIZED AREA:0000) NOT IN AN URBAN AREA
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

LATITUDE: 46.199901
LONGITUDE: -119.008329
UTM ZONE: 11
UTM NORTHING: 5118011
UTM EASTING: 345048
ELEVATION-MSL: 9999
PROBE HEIGHT:

SUPPORT AGENCY: (1136) Washington State Department Of Ecology
MONITOR TYPE: OTHER
COLLECTION AND ANALYSIS METHOD: (079) INSTRUMENTAL-R&P SA246B-INLET TEOM
REPORTING ORG: (1136) Washington State Department Of Ecology

REPORT FOR: AUGUST 2004

DURATION: 1 HOUR
UNITS: UG/CU METER (25 C)
MIN DETECTABLE: -50

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMU		
1	42	39	28	12	32	35	29	15	11	17	16	14	24	29	36	30	35	34	67	83	41	23	29	20	24	83.		
2	29	6	102	41	40	46	62	57	11	24	30	38	55	33	74	93		236	106	20	57	43	73	55	23	236.		
3	28	38	38	101	25	18	23	38	23	20	13	14	11		18		24	26	47	46	28	29	31	25	22	101.		
4	33	14	11	14	19	23	30	38	23	12	20	25	24	24	19		5	30	90	28	61	41	42	41	23	90.		
5	46	38	28	24	21	22	26	27	27	10	23	2	3	8	10		10	23	26	18	15	11	12	11	23	46.		
6	13	11	12	11	12	17	11	15	10	16	10	13	26	116	7	10		13	17	19	31	12	15	15	33	24	116.	
7	11	11	11	11	11	12	11	12	12	13	6	8	8	12	20	12		5	12	15	14	29	34	25	18	24	34.	
8	20	15	17	17	28	16	17	21	16	15	11	11	6	5	6	8		18	27	14	23	23	19	25	21	24	28.	
9	18	18	17	14	16	24	29	44	31	28	20	19	26	20	20	18		21	19	27	39	54	54	42	45	24	54.	
10	37	32	29	26	27	28	30	32	42	46	32	36	33													13	46.	
11						55	43	39	30	49	48	42	37	33	26	33		26	42	70	49	47	48	56	44	19	70.	
12	32	35	30	28	32	42	41	48	47	45	48	45	39	31	19	18		28	42	57		84	73	67	48	23	84.	
13	27	22	29	26	25	38	52	39	48	47	59	57	44	37	34	30		37	47	63	74	99	79	75	62	24	99.	
14	62	42	34	39	54	53	38	39	48	47	38	54	58	52	44	80		90	49	46	59	55	47	35	28	24	90.	
15	47	28	30	32	31	35	28	26	30	44	26	20	15	9	13	15		17	30	36	38	48	53	46	36	24	53.	
16	34	35	37	25	37	41	72	46	35	31	27	56	55	38	34	50		44	64	31	47	30	33	23	72.			
17	26	32	25	25	25	27	22	27	41	32	36	37	51	39	44	40		42	45	40	39	45	35	24	34	24	51.	
18	29	18	24	21	16	30	55	35	21	28				30	37	49		92	34	58	108	104	66	58	56	21	108.	
19	63	54	51	55	66	79	94	86																	8	94.		
20																		6		43	44	39	47	36	61	7	61.	
21	28	24	23	17	15	19	35	14	14	13	22	39	21	113	104	210		203	107	31	24	31	17	39	10	24	210.	
22	12	25	9	9	8	10	11	4	10	5	7	10	8	9	7	2		4	5	9	11	15	1	2	5	24	25.	
23	7	3	8	5	4	5	8	11	12	10	7	5	9	9	12	13		9	14	12	15	9	9	8	11	24	15.	
24	7	11	12	7	7	6	8	12	25	30	22	9	8	11	10	16		7	9	6	9	7	6	7	9	24	30.	
25	3	3	5	4	10	7	5	7	9	12	15	15	14	25	58	47		95	43	12	15	11	10	12	11	24	95.	
26	7	6	7	6	7	8	11	8	10	3	7	8	9	6	7	14		7	7	14	13	12	16	14	11	24	16.	
27	9	11	7	8	9	9	12	7	9	10	6	4	7	2	7	10		6	10	30	34	35	32	25	25	24	35.	
28	11	13	14	7	8	12	23	9	15	11	10	7	12	13	12	15		23	22	24	19	28	27	21	24	28.		
29	19	12	16	10	11	11	23	20	10	9	14	14	10	9	8	3		12	16	45	29	24	19	17	17	24	45.	
30	21	15	8	14	15	18	42	26	18	11	14	15	14	13	29	24		22	45	22	51	49	21	4	23	24	51.	
31	26	26	11	19	20	20	31	55	56	53	32	43	24	44	29	7		11	37	43	58	40	46	36	33	24	58.	
NO.:	29	29	29	29	29	30	29	29	29	29	28	28	28	26	27	27		27	29	29	28	29	29	29	29	29		
MAX:	63.	54.	102.	101.	66.	79.	94.	86.	56.	53.	59.	57.	58.	116.	104.	210.		203.	236.	106.	108.	104.	79.	75.	62.			
AVG:	25.8	22.0	23.2	21.7	21.8	25.4	29.7	29.5	24.3	24.6	21.8	23.4	23.1	27.9	27.6	31.9		32.9	37.4	38.4	37.9	38.8	33.4	31.4	29.2			

MONTHLY OBSERVATIONS: 685 MONTHLY MEAN: 28.4 MONTHLY MAX: 236.
Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk (***) indicates that the region has

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

CAS NUMBER: May. 2, 2005
LATITUDE: 46.199901
LONGITUDE: -119.008329
UTM ZONE: 11
UTM NORTHING: 5118011
UTM EASTING: 345048
ELEVATION-MSL: 9999
PROBE HEIGHT:

(81102) PM10 Total 0-10um STP
SITE ID: 53-071-0006 POC: 3
COUNTY: (071) Walla Walla
CITY:(00000) Not in a city
SITE ADDRESS: 755 MAPLE STREET, BURBANK WA
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (53) Washington
AQCR: (230) SOUTH CENTRAL WASHINGTON
URBANIZED AREA:0000) NOT IN AN URBAN AREA
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

SUPPORT AGENCY: (1136) Washington State Department Of Ecology
MONITOR TYPE: OTHER
COLLECTION AND ANALYSIS METHOD: (079) INSTRUMENTAL-R&P SA246B-INLET TEOM
REPORTING ORG: (1136) Washington State Department Of Ecology

REPORT FOR: SEPTEMBER 2004

DURATION: 1 HOUR
UNITS: UG/CU METER (25 C)
MIN DETECTABLE: -50

HOUR	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMU
1	31	28	41	33	34	33	33	40	101	168	56	39	36	29	144	182	186	29	36	31	19	19	11	24	186.	
2	23	8	12	7	17	19	22	16	23	16	9	6	11	32	24	12	8	22	19	10	21	15	19	23	32.	
3	12	32	7	20	28	29	25	27	9	18	13	12	15	17	24	24	17	29	33	27	16	18	13	24	33.	
4	30	34	24	24	23	17	24	21	24	35	70	48	36	21	17	35	39	56	64	71	25	28	57	29	71.	
5	15	13	33	34	16	22	18	14	10	10	16	15	12	8	16	10	19	14	35	34	33	20	22	18	35.	
6	10	21	16	12	10	15	39	36	28	17	20	19	14	18	12	24	26	21	37	55	54	28	25	20	24	55.
7	9	7	19	10	23	30	55	48	26	30	17	21	6	37	18	25	28	47	52	83	52	38	26	19	24	83.
8	18	33	39	24	25	32	33	22	28	20	25	18	39	23	37	46	66	108	53	46	29	41	24	14	24	108.
9	21	17	22	13	13	15	15	13	9	7	14	11	14	22	19	17	27	24	31	15	29	16	24	14	24	31.
10	9	23	12	13	13	14	28	34	19	10	14	9	7	11	23	17	24	20	49	48	30	29	28	31	24	49.
11	27	25	26	24	22	27	40	21	22	28	31	21	13	24	30	73	34	23	13	15	21	20	27	28	24	73.
12	20	21	16	17	19	15	10	8	16	16	7	5	8	12	12	14	17	22	19	26	22	15	16	18	24	26.
13	22	14	10	4	9	11	23	30	27	9	15	11	6	15	3	42	22	44	37	19	17	17	13	11	24	44.
14	8	9	8	6	11	7	9	12	15	13	14	12	26	15	21	21	26	33	18	13	30	23	24	13	24	33.
15	17	22	24	7	8	12	10	12	13	15	16	48	23	73	98	228	242	40	23	14	13	7	7	7	24	242.
16	3	3	5	5	5	8	9	7	10	10	10	15	10	18	23	15	27	19	25	21	26	8	14	11	24	27.
17	4	7	8	7	7	15	20	22	13	7	13	7	19	13	9	15	7	13	3	5	3	1	9	3	24	22.
18																									0	
19																									0	
20																									0	
21																									0	
22																									0	
23																									0	
24																									0	
25																									0	
26																									0	
27																									0	
28	38	40	34	36	37	34	37	42	78	61	62	64	62	61	62	57	65	69	81	101	97	65	53	48	24	87.
29	48	47	43	40	38	44	54	82	61	45	42	28	28	30	35	37	36	41	47	68	76	53	45	34	24	101.
30	22	17	17	19	17	20	28	34	34	37	37	40	31	36	33	43	61	53	78	94	87	66	58	43	24	82.
31																									24	94.
NO.:	20	20	20	20	20	20	20	20	20	20	19	20	20	21	21	21	21	21	21	21	21	21	21	21	21	0
MAX:	48.	47.	43.	40.	38.	44.	55.	82.	78.	101.	168.	64.	62.	73.	98.	228.	242.	186.	81.	101.	97.	66.	58.	48.	24	87.
AVG:	19.4	21.1	20.8	17.8	18.8	21.0	26.6	26.7	25.3	25.3	31.8	23.5	20.7	25.5	27.5	45.3	48.8	42.7	38.5	42.6	38.0	27.9	27.2	21.1	24	82.

MONTHLY OBSERVATIONS: 490 MONTHLY MEAN: 28.6 MONTHLY MAX: 242.
Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk (***) indicates that the region has

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

CAS NUMBER: May. 2, 2005
LATITUDE: 46.199901
LONGITUDE: -119.008329
UTM ZONE: 11
UTM NORTHING: 5118011
UTM EASTING: 345048
ELEVATION-MSL: 9999
PROBE HEIGHT:

(81102) PM10 Total 0-10um STP
SITE ID: 53-071-0006 POC: 3
COUNTY: (071) Walla Walla
CITY:(00000) Not in a city
SITE ADDRESS: 755 MAPLE STREET, BURBANK WA
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (53) Washington
AQCR: (230) SOUTH CENTRAL WASHINGTON
URBANIZED AREA:0000) NOT IN AN URBAN AREA
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

SUPPORT AGENCY: (1136) Washington State Department Of Ecology
MONITOR TYPE: OTHER
COLLECTION AND ANALYSIS METHOD: (079) INSTRUMENTAL-R&P SA246B-INLET TEOM
REPORTING ORG: (1136) Washington State Department Of Ecology

REPORT FOR: OCTOBER 2004

DURATION: 1 HOUR
UNITS: UG/CU METER (25 C)
MIN DETECTABLE: -50

DAY	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMU	
1	39	34	23	22	21	24	53	45	39	47	42	37	33	42	43	56	97	81	73	74	50	42	37	23	97.		
2	36	36	35	33	31	31	39	49	45	46	47	51	39	35	36	42	38	71	70	53	49	47	43	32	24	71.	
3	26	26	23	22	21	22	28	29	29	32	34	32	32	34	34	34	33	83	52	60	42	36	29	24	24	83.	
4	26	26	23	24	25	26	54	64	47	40	39	37	33	34	38	32	37	60	89	83	53	42	34	31	24	89.	
5	35	35	34	28	29	31	55	45	36	54	64	71	54	61	50	51	64	75	79	69	49	52	38	27	24	79.	
6	27	25	21	21	21	27	26	18	15	24	37	20	28	24	37	75	47	23	15	10	15	15	14	23	75.		
7	15	11	14	12	13																				5	15.	
8																									0		
9																									0		
10																									0		
11																									0		
12																									0		
13																									0		
14																									10	52.	
15	27	23	22	21	20	24	26	30	33	24	14	17	27	12	16	22	32	43	50	47	41	32	46	46	24	50.	
16	31	20	20	36	34	27	23	18	20	19	16	12	14	15	20	11	11	6	8	15	17	14	14	11	24	36.	
17	8	11	12	8	11	7	9	11	12	12	14	12	13	12	12	28	7	3	2	5	4	10	9	13	24	28.	
18	84	14	9	10	4	7	6	8	13	8	7	6	8	7	8	9	10	13	25	14	13	7	5	7	24	84.	
19	3	4	5	6	3	5	16	28	71	34	30	20	32	19	19	20	11	11	12	14	12	13	8	9	24	71.	
20	9	11	13	7	11	11	16	24	20	19	11	7		12	12	11	16	12	10	20	19	10	14	13	23	24.	
21	13	13	9	11	8	9	13	8	39	13	7	5	6	10	10	13	4	17	19	19	16	22	19	18	24	39.	
22	15	14	12	17	24	17	31	25	18	22	22	14	8	11	17	15	11	10	10	8	8	8	7	8	24	31.	
23	6	6	17	13	13	14	12	18	20	8	9	6	7	7	6	5	12	20	20	9	10	8	7	10	24	20.	
24	5	7	8	6	6	6	7	9	7	5	6	7	4	8	4	5	14	10	12	10	7	10	7	7	24	14.	
25	4	8	3	5	10	6	13	18	7	16	23	17	14	20	15	20	18	14	15	13	15	17	14	12	24	23.	
26	9	11	6	6	12	14	23	27	32	27	26	35	26	27	29	24	23	33	26	28	32	30	33	20	24	35.	
27	15	10	9	9	10	14	16	18	41	32	23	31	27	25	31	28	35	29	37	32	32	24	25	25	24	41.	
28	21	23	19	18	25	22	28	34	29	27	32	28	21	35	29	27	30	36	33	32	25	29	21	16	24	36.	
29	17	15	7	12	11	12	19	18	7	10	8	14	12	14	20	19	25	24	18	15	12	15	9	24	25.		
30	14	15	19	11	12	41	80	50	59	173	271	194	134	134	71	28	30	39	18	10	9	12	6	17	24	271.	
31	7	8	14	11	10	13	3	6	1	5	5	7	6	5	8	7	14	16	19	18	19	19	17	8	24	19.	
NO.:	24	24	24	24	24	23	23	23	23	23	23	23	22	23	23	24	24	24	24	24	24	24	24	24	24		
MAX:	84.	36.	35.	36.	34.	41.	80.	64.	71.	173.	271.	194.	134.	134.	71.	51.	75.	97.	89.	83.	74.	52.	46.	46.			
AVG:	20.5	16.9	15.7	15.4	16.0	17.8	25.9	26.1	28.3	30.2	34.3	29.3	26.4	26.1	23.5	22.4	26.1	33.7	32.3	29.5	26.0	23.8	21.0	18.6			

MONTHLY OBSERVATIONS: 564 MONTHLY MEAN: 24.4 MONTHLY MAX: 271.
Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk (**) indicates that the region has

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
RAW DATA REPORT

CAS NUMBER: May. 2, 2005

(81102) PM10 Total 0-10um STP
SITE ID: 53-071-0006 POC: 3
COUNTY: (071) Walla Walla
CITY:(00000) Not in a city
SITE ADDRESS: 755 MAPLE STREET, BURBANK WA
SITE COMMENTS:
MONITOR COMMENTS:

STATE: (53) Washington
AQCR: (230) SOUTH CENTRAL WASHINGTON
URBANIZED AREA:(0000) NOT IN AN URBAN AREA
LAND USE: RESIDENTIAL
LOCATION SETTING: SUBURBAN

LATITUDE: 46.199901
LONGITUDE: -119.008329
UTM ZONE: 11
UTM NORTHING: 5118011
UTM EASTING: 345048
ELEVATION-MSL: 9999
PROBE HEIGHT:

SUPPORT AGENCY: (1136) Washington State Department Of Ecology
MONITOR TYPE: OTHER
COLLECTION AND ANALYSIS METHOD: (079) INSTRUMENTAL-R&P SA246B-INLET TEOM
REPORTING ORG: (1136) Washington State Department Of Ecology

REPORT FOR: DECEMBER 2004

DURATION: 1 HOUR
UNITS: UG/CU METER (25 C)
MIN DETECTABLE: -50

HOUR	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	OBS	MAXIMU
1	15	2	15	12	12	14	13	18	14	4	18	0	0	0	7	18	22	10	9	9	4	8	8	23	22.	
2	8	9	4	4	12	21	22	19	17	37	15	13	12	9	11	17	16	18	17	14	10	10	8	8	24	37.
3	9	8	9	6	5	12	12	14	13	14	13	13	13	17	16	16	16	18	21	17	17	12	10	9	24	21.
4	7	10	9	12	10	11	11	7	10	9	8	9	10	10	11	10	12	12	15	19	13	13	13	12	24	19.
5	11	11	6	6	14	13	14	12	14	12	11	8	7	9	17	11	19	7	7	7	5	6	5	5	24	19.
6	2	4	4	2	3	5	9	12	9	16	10	10	13	9	7	7	18	15	12	8	15	13	8	7	24	18.
7	6	7	7	6	6	7	8	5	7	9	7	6	4	1	5	4	10	10	2	4	11	6	1	0	24	11.
8	0	4	8	4	5	6	7	5	7	7	4	8	7	8	9	8	9	9	7	10	11	9	7	6	24	11.
9	5	7	8	8	8	9	13	14	14	12	12	10	5	6	9	27	23	8	12	13	14	7	9	14	24	27.
10	10	13	12	15	18	17	8	7	10	13	2	2	8	1	13	8	6	9	15	7	5	1	5	4	24	18.
11	1	3	4	4	5	6	7	2	4	14	5	7	3	7	6	10	15	11	8	7	6	5	3	7	24	15.
12	3	4	4	3	4	3	5	3	4	6	4	4	4	5	6	6	5	3	6	5	5	7	6	10	24	10.
13	9	12	8	7	8	9	15	14	26	14	9	8	11	7	6	11	18	33	21	21	21	15	13	20	24	33.
14	21	21	12	8	9	7	8	9	16	11	11	3	5	5	3	5	7	4	9	7	7	6	5	7	24	21.
15	8	10	9	6	6	8	11	17	23	15	8	11	18	8	10	15	16	15	10	10	9	10	9	8	24	23.
16	8	9	10	7	6	5	3	6	8	10	10	11	10	11	10	13	8	10	13	14	11	7	9	5	23	14.
17																									0	
18	5	5	2	2	5	4	4	7	6	7	9	5	7	8	15	15	7	3	3	4	4	7	8	7	24	15.
19	8	10	9	8	3	3	5	9	8	9	6	6	10	10	21	35	25	4	8	8	5	8	5	4	24	35.
20	7	12	9	10	8	10	10	19	23	17	13	5	3	4	9	11	20	17	13	17	16	16	14	6	24	23.
21	15	14	11	2	6	6	8	12	20	18	4	2	7	8	9	9	14	20	23	22	15	16	18	11	24	23.
22	23	14	8	5	7	12	4	8	23	26	27	17	10	13	15	9	19	30	20	17	11	10	10	12	24	30.
23	13	22	7	6	7	5	18	11	21	21	9	9	3	7	14	14	16	18	21	18	19	17	12	13	24	22.
24	11	7	10	12	10	14	17	10	12	20	12	11	8	10	10	11	24	26	23	24	22	26	22	18	24	26.
25	17	19	22	7	6	7	7	7	10	9	9	10	7	10	13	12	13	15	14	12	10	10	11	12	24	22.
26																									0	
27	10	13	11	11	14	19	25	32	24	34	27	10	10	8	14	11	4	6	7	9	11	9	7	7	24	34.
28	5	6	5	5	3	5	6	8	8	8	7	10	6	11	8	11	9	7	5	4	8	6	9	8	24	11.
29	7	8	8	9	8	7	7	6	8	9	8	1	3	6	4	6	6	5	5	10	9	13	16	10	24	16.
30	11	15	14	10	9	9	11	13	12	16	10	11	6	7	9	10	6	11	11	7	8	4	5	4	24	16.
31	13	19	15	15	15	13	7	2	7	5	7	5	4	4	9	4	1	4	5	5	3	1	2	1	24	19.
NO.:	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	27	29	29	29	29	29	29	29	29	29	
MAX:	23.	22.	22.	15.	18.	21.	25.	32.	26.	37.	27.	17.	18.	17.	21.	35.	25.	33.	23.	24.	22.	26.	22.	20.		
AVG:	9.2	10.3	9.0	7.3	8.0	9.2	10.0	10.7	13.4	13.6	10.2	7.6	7.5	7.5	10.2	11.6	13.1	12.8	11.8	11.3	10.7	9.4	8.9	8.4		

MONTHLY OBSERVATIONS: 694 MONTHLY MEAN: 10.1 MONTHLY MAX: 37.
Note: Qualifier codes with regional concurrence are shown in upper case, and those without regional review are shown in lower case. An asterisk (***) indicates that the region has

Monthly Running Average Report

Run Date: 05/02/05 10:14

(1 Hour Rolling Averages)

SITE NAME: BURMAPLE : 53-071-0006
ADDRESS: 755 MAPLE STREET BURBANK
LAT/LONG: 046 12' 00" / 119 00' 30"
ELEVATION: 590

METHOD: 79

PARAMETER NAME: TPM10
PARAMETER CODE: 81102
UNITS: UG/M3

MONTH: January
YEAR: 2005
DECIMAL POSITIONER: 0
PROJECT: 01

Hourly Averages
Beginning Hour (PST)

DA	C	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	MAX	RDS
01	SA	11	7	7	14	8	5	6	4	7	5	6	5	7	4	6	7	5	6	6	5	5	6	7	6	6	14	24
02	SU	7	7	8	5	6	7	8	8	7	10	11	10	6	6	7	6	7	7	6	6	8	8	7	6	7	11	24
03	MO	6	6	7	6	8	7	9	14	8	9	10	13	12	14	13	27	5	8	9	11	10	13	12	9	10	27	24
04	TU	6	6	7	7	7	11	10	14	14	11	6	9	8	12	11	11	14	10	11	11	10	11	9	12	10	14	24
05	WE	8	8	10	9	11	11	21	17	26	17	9	8	4	8	10	9	10	35	21	15	10	8	11	14	13	35	24
06	TH	15	13	12	13	9	10	17	19	21	25	21	D	5	8	16	19	15	17	17	18	16	16	15	15	25	23	
07	FR	14	15	14	12	11	11	13	13	14	42	18	6	6	7	9	7	8	10	10	12	8	6	6	8	12	42	24
08	SA	10	8	4	5	8	6	7	12	28	14	3	4	9	9	7	7	8	8	8	11	10	9	13	10	9	28	24
09	SU	9	11	10	6	5	7	6	8	12	10	7	7	6	6	5	6	6	8	5	7	10	7	6	5	7	12	24
10	MO	9	10	9	6	5	6	7	9	9	20	5	5	6	4	9	11	8	10	7	8	7	7	8	7	8	20	24
11	TU	5	7	8	4	7	11	14	28	19	16	16	12	14	16	13	13	6	5	7	7	7	8	11	13	11	28	24
12	WE	6	4	4	9	6	5	7	6	7	15	13	13	15	8	10	16	8	7	7	7	5	6	5	4	8	16	24
13	TH	5	6	5	6	5	10	9	14	13	13	12	7	7	10	11	10	14	11	10	12	13	12	11	10	10	14	24
14	FR	11	7	8	7	8	8	9	13	13	12	9	12	12	10	13	11	11	11	10	9	10	10	8	8	10	13	24
15	SA	5	6	7	6	6	8	8	9	9	8	9	9	9	7	8	33	69	29	20	14	12	9	7	8	13	69	24
16	SU	9	5	8	7	6	7	9	9	13	15	11	9	6	5	7	7	7	8	11	8	5	6	10	10	8	15	24
17	MO	9	7	9	8	9	5	7	10	7	7	11	11	8	11	10	13	9	12	15	12	15	20	16	15	11	20	24
18	TU	21	16	11	11	9	9	14	17	16	20	21	21	24	24	20	19	21	28	20	16	14	17	20	16	18	28	24
19	WE	24	20	1	0	0	0	7	8	16	17	6	6	4	13	3	2	3	7	10	8	6	3	6	4	7	24	24
20	TH	13	13	10	5	13	9	14	23	32	24	16	23	12	9	28	10	5	10	6	6	12	16	6	6	14	32	24
21	FR	11	7	9	8	9	8	11	19	23	29	24	28	19	19	21	13	4	7	8	3	6	10	5	9	13	29	24
22	SA	9	6	4	4	5	5	6	3	8	7	11	10	14	27	13	18	18	19	13	15	14	15	11	11	11	27	24
23	SU	12	9	11	9	9	7	10	10	15	14	12	13	12	15	12	6	6	14	8	13	5	3	6	5	10	15	24
24	MO	6	5	8	6	5	7	7	6	10	8	8	21	20	16	18	18	18	17	13	10	9	11	12	12	11	21	24
25	TU	13	11	12	15	16	17	12	12	12	10	8	7	9	9	12	10	11	11	9	8	8	7	8	6	11	17	24
26	WE	10	11	9	10	8	11	12	7	9	9	8	9	12	15	10	13	11	18	22	17	13	10	14	15	12	22	24
27	TH	14	10	9	13	10	6	7	9	14	22	21	22	22	20	20	16	11	8	9	11	10	7	9	6	13	22	24
28	FR	5	6	7	8	10	11	10	23	26	16	11	10	14	8	15	9	12	18	15	9	13	15	6	6	12	26	24
29	SA	5	8	12	14	2	7	11	13	14	21	15	34	25	21	23	15	5	8	5	2	4	2	4	1	11	34	24
30	SU	0	1	1	3	5	8	3	4	10	15	8	9	11	14	3	4	6	8	10	6	7	4	3	7	6	15	24
31	MO	2	2	4	2	9	7	6	7	17	17	19	10	9	8	9	8	3	8	14	16	16	17	13	13	10	19	24
AVG		9	8	8	8	8	8	10	12	14	15	12	12	11	12	12	12	11	12	11	10	10	10	9	9	10		
MAX		24	20	14	15	16	17	21	28	32	42	24	34	25	27	28	33	69	35	22	18	16	20	20	16	69		
DAYS		31	31	31	31	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	31			743

STANDARD DEVIATION 69

NOTES:

NOTES: *** INDICATE INVALID DATA OR LESS THAN 75 PERCENT VALID DATA INCLUDED.

STATUS CODES 'P' - POWER DOWN, 'D' - DISABLED, 'B' - BAD STATUS, 'C' - CALIBRATION, '-' - MINIMUM, '+' - MAXIMUM,
'R' - RATE OF CHANGE, 'E' - FIELD EXCEEDED, 'N' - DATA NOT FOUND, 'A' - CALIBRATION OUT OF TOLERANCE, ' ' - NO ERROR

Monthly Running Average Report
Run Date: 05/02/05 10:15
(1 Hour Rolling Averages)

SITE NAME: BURMAPLE : 53-071-0006
ADDRESS: 755 MAPLE STREET BURBANK
LAT/LONG: 046 12' 00" / 119 00' 30"
ELEVATION: 590

PARAMETER NAME: TPM10
PARAMETER CODE: 81102
UNITS: UG/M3
METHOD: 79
DECIMAL POSITIONER: 0
PROJECT: 01
MONTH: February
YEAR: 2005

Hourly Averages
Beginning Hour (PST)

DA	C	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	MAX	RDS
01	TU	10	11	5	10	19	10	15	33	30	20	24	8	10	10	13	14	17	17	29	24	23	19	9	12	16	33	24
02	WE	8	7	9	12	16	11	14	66	49	19	17	21	15	9	7	7	10	31	34	42	36	17	10	8	20	66	24
03	TH	8	7	11	7	8	10	17	44	56	21	26	53	42	29	35	53	60	48	56	51	51	39	29	36	33	60	24
04	FR	52	20	12	12	16	20	23	18	9	7	10	9	13	247	42	59	31	6	13	8	7	3	3	3	27	247	24
05	SA	3	3	2	3	2	3	5	4	5	5	6	3	5	2	17	7	6	9	9	6	8	15	8	8	6	17	24
06	SU	7	6	6	5	6	11	11	6	7	9	5	1	0	0	1	1	4	4	4	6	5	14	9	7	6	14	24
07	MO	7	8	9	7	6	7	9	10	14	11	10	7	8	9	11	9	16	11	23	22	16	13	8	11	11	23	24
08	TU	11	10	11	11	13	14	16	26	37	29	44	22	17	17	19	D	7D	21	35	40	28	14	9	16	20	44	23
09	WE	17	17	9	5	8	12	22	30	29	42	21	21	28	37	14	15	20	19	41	28	45	33	37	23	24	45	24
10	TH	19	16	15	11	8	10	17	29	39	23	22	33	25	20	28	27	15	31	42	37	34	31	27	23	24	42	24
11	FR	15	20	11	10	13	12	25	33	29	17	22	20	20	13	14	11	13	37	47	43	34	26	27	21	22	47	24
12	SA	20	19	19	21	23	20	22	26	30	28	15	16	12	14	12	19	13	2	4	4	2	2	0	0	14	30	24
13	SU	1	2	3	1	3	3	3	6	3	1	4	5	1	6	7	7	10	15	15	17	15	12	11	8	7	17	24
14	MO	6	7	8	3	6	6	8	12	16	8	5	4	3	5	4	12	24	25	17	29	30	38	26	29	14	38	24
15	TU	21	16	14	10	13	12	29	40	32	33	10	16	22	11	10	8	10	23	26	26	22	22	19	16	19	40	24
16	WE	11	13	11	10	15	13	13	27	36	32	24	30	19	14	17	14	18	33	55	53	43	47	29	24	25	55	24
17	TH	16	16	13	10	11	16	16	35	19	24	27	21	11	13	16	21	19	39	62	45	45	25	41	30	25	62	24
18	FR	14	13	9	6	10	13	19	41	37	29	24	24	25	24	23	34	25	32	46	44	45	46	53	34	28	53	24
19	SA	22	23	21	18	17	18	19	23	25	29	35	32	35	33	27	16	14	26	42	38	27	30	25	18	26	42	24
20	SU	11	13	11	6	12	13	10	12	14	12	12	12	8	16	12	13	31	19	22	18	18	16	13	14	14	31	24
21	MO	15	11	15	11	11	11	11	24	27	25	30	26	26	26	18	20	19	30	58	56	44	36	33	32	26	58	24
22	TU	28	25	20	21	16	22	24	66	34	23	31	16	22	21	28	28	27	45	51	62	72	72	62	61	37	72	24
23	WE	41	40	20	20	19	18	31	87	56	19	22	34	33	31	36	34	47	47	57	67	59	50	34	28	39	87	24
24	TH	19	18	17	16	18	16	20	55	39	39	39	49	44	50	45	39	33	43	72	69	71	57	47	41	40	72	24
25	FR	29	32	21	11	12	12	20	56	52	35	46	36	48	49	51	47	45	54	82	56	66	51	47	40	42	82	24
26	SA	23	21	19	11	15	18	19	41	20	28	44	46	39	42	46	34	17	45	29	40	44	43	28	37	31	46	24
27	SU	30	18	15	16	14	13	21	35	13	24	25	20	22	21	22	22	20	46	52	58	45	34	21	21	26	58	24
28	MO	16	12	9	18	18	21	28	36	31	26	33	37	39	8	8	2	9	0	4	10	8	8	1	2	16	39	24
AVG		17	15	12	11	12	13	17	33	28	22	23	22	21	28	21	21	21	27	37	36	34	29	24	22	22		
MAX		52	40	21	21	23	22	31	87	56	42	46	53	48	247	51	59	60	54	82	69	72	72	62	61	247		
DAYS		28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	27	28	28	28	28	28	28	28	28			671

STANDARD DEVIATION 247

NOTES:

NOTES: *** INDICATE INVALID DATA OR LESS THAN 75 PERCENT VALID DATA INCLUDED.
STATUS CODES 'P' - POWER DOWN, 'D' - DISABLED, 'B' - BAD STATUS, 'C' - CALIBRATION, '-' MINIMUM, '+' - MAXIMUM,
'R' - RATE OF CHANGE, 'E' - FIELD EXCEEDED, 'N' - DATA NOT FOUND, 'A' - CALIBRATION OUT OF TOLERANCE, ' ' - NO ERROR

Monthly Running Average Report
Run Date: 04/22/05 02:44
(1 Hour Rolling Averages)

SITE NAME: BURMAPLE : 53-071-0006
ADDRESS: 755 MAPLE STREET BURBANK
LAT/LONG: 046 12' 00" / 119 00' 30"
ELEVATION: 590

PARAMETER NAME: TPM10
PARAMETER CODE: 81102
METHOD: 79
UNITS: UG/M3

MONTH: March
YEAR: 2005
DECIMAL POSITIONER: 0
PROJECT: 01

Hourly Averages
Beginning Hour (PST)

DA	C	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	MAX	RDS
01	TU	3	1	1	3	1	2	2	21	16	22	26	17	8	7	23	61	49	26	19	26	26	24	19	11	17	61	24
02	WE	8	13	10	11	11	14	18	28	38	27	13	8	7	13	4	7	3	3	18	26	28	17	12	15	15	38	24
03	TH	11	6	2	3	8	10	11	22	30	29	37	29	22	14	10	15	61	89	34	40	47	30	26	25	25	89	24
04	FR	19	10	11	11	9	13	31	39	31	26	29	14D	17	34	45	28	42	39	47	55	85	61	38	24	32	85	24
05	SA	21	22	13	13	12	12	13	19	18	16	17	13	16	16	20	28	30	26	28	28	22	18	19	24	19	30	24
06	SU	16	13	10	11	11	12	15	14	23	13	14	15	10	8	8	31	17	17	38	38	54	41	31	19	20	54	24
07	MO	10	10	9	11	16	17	22	31	17	17	18	21	31	41	30	59	26	46	59	28	24	24	25	19	25	59	24
08	TU	23	19	14	12	10	14	15	43	35	11	10	12	11	17	26	23	25	39	55	62	51	29	27	22	25	62	24
09	WE	19	16	15	15	14	16	18	48	45	19	26	22	20	23	21	41	112	60	53	56	28	24	26	19	32	112	24
10	TH	21	15	11	10	10	14	21	26	30	24	31	38	32	24	16	14	19	66	58	71	93	50	34	14	31	93	24
11	FR	12	13	15	17	12	12	17	30	40	28	31	29	23	19	22	26	27	116	74	50	58	61	54	56	35	116	24
12	SA	79	54	34	22	18	6	11	20	24	163	927	0	0	566	438	151	75	41	37	66	68	30	32	40	121	927	24
13	SU	25	31	35	20	31	28	21	38	24	16	19	14	13	7	9	8	15	22	39	52	41	49	51	33	27	52	24
14	MO	19	21	20	20	18	16	22	48	32	23	27	22	16	12	53	46	66	42	53	51	46	40	37	51	33	66	24
15	TU	31	19	17	33	14	25	28	59	28	14	15	14	25	59	50	53	60	122	101	46	26	29	34	33	39	122	24
16	WE	79	18	30	26	24	12	19	29	26	45	71	106	32	23	250	894	694	276	69	6	11	24	22	15	117	894	24
17	TH	15	10	13	11	11	9	12	26	14	8	8	6	12	9	7	14	17	44	17	15	19	21	18	12	15	44	24
18	FR	8	5	6	4	11	6	14	19	6	6	12	10	12	22	100	190	95	93	17	19	11	14	19	17	30	190	24
19	SA	16	26	15	13	7	14	15	18	11	30	37	22	23	15	24	19	15	19	13	8	11	11	6	9	17	37	24
20	SU	9	7	9	24	5	2	5	5	9	4	2	5	13	9	9	13	25	34	99	180	38	37	2	10	23	180	24
21	MO	6	8	8	4	6	6	2	9	5	12	13	10	10	3	5	85	11	13	21	41	33	11	13	13	15	85	24
22	TU	13	10	10	6	7	14	12	15	23	32	D	19	17	11	28	27	28	14	17	11	9	5	4	13	15	32	23
23	WE	12	13	18	2	6	4	7	11	11	16	53	37	26	27	23	17	11	34	26	20	29	43	21	13	20	53	24
24	TH	6	14	19	9	16	5	6	2	14	6	7	8	10	113	24	18	37	24	23	16	18	22	14	9	18	113	24
25	FR	10	10	15	9	8	14	23	12	20	12	15	20	8	12	11	10	9	13	44	32	9	6	8	7	14	44	24
26	SA	6	8	7	13	16	8	18	21	26	5	15	27	20	11	11	16	14	26	19	9	9	4	0	2	13	27	24
27	SU	3	4	3	3	7	8	12	15	15	15	7	11	6	18	18	7	32	6	0	0	1	4	1	2	8	32	24
28	MO	8	1	1	1	1	2	5	10	16	8	36	55	72	71	54	110	334	170	29	18	18	9	15	14	44	334	24
29	TU	13	5	10	3	18	2	5	25	66	136	328	415	232	D	691D	537	531	269	228	108	58	51	39	22	165	691	23
30	WE	30	11	11	12	11	9	16	16	16	35	15	9	11	14	75	17	11	13	14	24	26	24	12	12	19	75	24
31	TH	12	10	11	9	5	7	11	8	6	9	6	7	7	14	13	14	25	34	28	20	19	30	29	18	15	34	24
AVG		18	14	13	12	11	11	14	23	23	27	62	33	25	41	68	83	81	59	44	39	33	27	22	19	33		
MAX		79	54	35	33	31	28	31	59	66	163	927	415	232	566	691	894	694	276	228	180	93	61	54	56	927		
DAYS		31	31	31	31	31	31	31	31	31	31	30	31	31	30	31	31	31	31	31	31	31	31	31	31			742

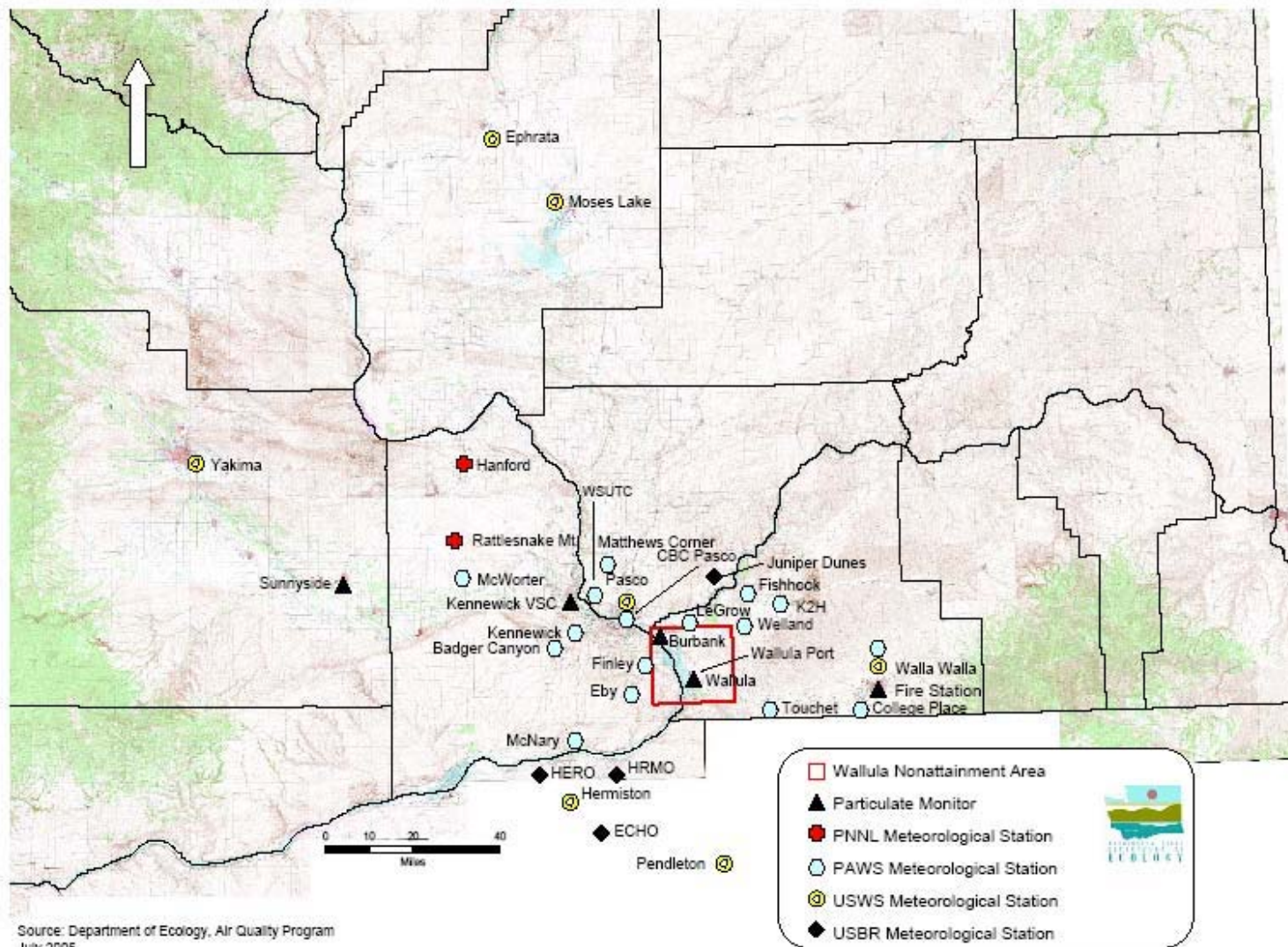
STANDARD DEVIATION 927

NOTES:

NOTES: *** INDICATE INVALID DATA OR LESS THAN 75 PERCENT VALID DATA INCLUDED.
STATUS CODES 'P' - POWER DOWN, 'D' - DISABLED, 'B' - BAD STATUS, 'C' - CALIBRATION, '-' - MINIMUM, '+' - MAXIMUM,
'R' - RATE OF CHANGE, 'E' - FIELD EXCEEDED, 'N' - DATA NOT FOUND, 'A' - CALIBRATION OUT OF TOLERANCE, ' ' - NO ERROR

APPENDIX B

METEOROLOGICAL DATA and MAP of METEOROLOGICAL STATIONS



Source: Department of Ecology, Air Quality Program
July 2005

Monthly Running Average Report
Run Date: 04/25/05 02:44
(1 Hour Rolling Averages)

SITE NAME: BURMAPLE : 53-071-0006
ADDRESS: 755 MAPLE STREET BURBANK
LAT/LONG: 046 12' 00" / 119 00' 30"
ELEVATION: 590

METHOD: 50

PARAMETER NAME: WS
PARAMETER CODE: 61101
UNITS: MPH

MONTH: March
YEAR: 2005
DECIMAL POSITIONER: 1
PROJECT: 01

Hourly Averages
Beginning Hour (PST)

DA	C	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	MAX	RDS
01	TU	36	37	28	47	47	59	31	32	31	33	48	59	59	55	82	88	70	65	68	43	23	36	61	48	4.9	8.8	24
02	WE	21	32	21	15	10	20	12	16	21	52	62	51	31	33	58	44	51	57	41	48	41	32	19	24	3.4	6.2	24
03	TH	26	30	25	10	24	40	32	14	20	30	41	50	46	44	50	52	32	56	53	14	40	42	38	38	3.5	5.6	24
04	FR	47	46	28	34	21	26	23	25	8	20	31	32	52	42	39	31	25	29	35	14	34	29	26	45	3.1	5.2	24
05	SA	36	23	31	25	35	38	35	34	41	27	23	37	74	76	101	82	54	33	27	37	26	41	28	33	4.2	10.1	24
06	SU	31	27	26	33	30	16	37	21	19	42	78	72	43	44	41	31	20	13	28	7	21	11	16	30	3.1	7.8	24
07	MO	23	28	34	25	23	32	30	65	25	32	57	54	93	129	95	106	62	55	51	30	34	31	31	35	4.9	12.9	24
08	TU	46	47	27	34	35	32	18	17	36	62	57	49	82	101	89	71	42	17	38	32	41	34	26	52	4.5	10.1	24
09	WE	34	38	24	30	33	31	26	24	19	29	47	88	62	71	68	105	157	142	96	98	61	40	64	53	6.0	15.7	24
10	TH	46	19	26	44	27	27	35	32	20	22	41	35	39	52	54	44	34	30	23	18	24	37	20	35	3.3	5.4	24
11	FR	23	44	27	47	43	20	33	26	28	35	31	58	56	76	70	55	36	49	35	40	42	37	21	58	4.1	7.6	24
12	SA	86	87	73	69	126	62	75	57	58	108	201	237	227	193	187	161	136	68	37	19	19	46	47	31	10.0	23.7	24
13	SU	22	23	16	22	33	30	35	15	17	17	31	38	69	57	89	76	58	48	52	15	17	27	31	19	3.6	8.9	24
14	MO	21	20	27	27	30	40	38	39	17	24	33	38	58	68	69	67	69	47	68	78	46	29	20	27	4.2	7.8	24
15	TU	32	33	27	46	34	39	25	25	24	33	36	67	56	113	114	90	109	96	106	89	30	62	93	90	6.1	11.4	24
16	WE	90	45	64	37	76	58	69	42	64	113	127	130	77	72	147	192	203	194	140	132	62	91	89	114	10.1	20.3	24
17	TH	92	83	86	78	57	105	52	32	22	26	72	42	41	70	56	77	69	83	60	56	38	25	40	53	5.9	10.5	24
18	FR	90	55	59	38	52	23	33	29	48	83	102	86	73	45	120	121	110	108	81	71	88	100	85	105	7.5	12.1	24
19	SA	104	57	75	78	57	21	18	26	69	93	99	122	108	86	86	79	59	23	47	55	56	75	58	42	6.6	12.2	24
20	SU	45	51	62	83	50	66	121	131	124	123	132	132	116	127	107	107	89	106	145	175	119	166	127	129	11.0	17.5	24
21	MO	142	135	61	34	100	70	120	127	104	129	128	139	137	82	73	71	48	33	22	20	18	36	16	43	7.9	14.2	24
22	TU	49	54	61	51	74	89	122	129	127	111	<u>D</u>	<u>D</u>	50	49	55	22	19	26	31	26	18	24	28	34	5.7	12.9	22
23	WE	37	27	66	105	120	141	159	151	163	161	176	158	146	131	127	125	130	149	124	100	109	88	93	86	12.0	17.6	24
24	TH	89	72	67	68	69	97	88	124	63	59	52	53	56	55	73	52	67	88	82	77	68	66	29	45	6.9	12.4	24
25	FR	30	21	39	49	63	97	77	86	117	101	102	78	48	38	50	57	64	52	66	72	90	96	67	82	6.8	11.7	24
26	SA	82	48	45	31	44	35	41	22	35	47	54	80	93	96	114	98	84	49	33	69	70	55	76	65	6.1	11.4	24
27	SU	36	37	30	26	28	38	22	33	64	79	96	81	92	128	74	65	68	88	55	70	82	70	94	69	6.4	12.8	24
28	MO	118	100	98	138	150	130	120	160	173	146	183	190	185	190	181	196	205	185	89	117	133	75	75	73	14.2	20.5	24
29	TU	82	80	84	68	108	106	180	202	223	222	244	233	219	254	270	272	263	256	228	232	207	231	219	219	19.6	27.2	24
30	WE	203	188	184	190	182	167	179	151	160	159	119	111	129	103	101	84	79	81	58	53	42	77	50	46	12.1	20.3	24
31	TH	50	15	29	33	83	70	58	83	67	56	56	41	32	47	67	59	59	80	49	59	65	44	35	44	5.3	8.3	24
AVG		60	52	50	52	60	59	63	63	65	73	85	88	85	88	94	90	83	78	67	63	57	60	56	60	6.8		
MAX		203	188	184	190	182	167	180	202	223	222	244	237	227	254	270	272	263	256	228	232	207	231	219	219	27.2		
DAYS		31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31	31	31		742	

STANDARD DEVIATION 27.2

NOTES:

NOTES: *** INDICATE INVALID DATA OR LESS THAN 75 PERCENT VALID DATA INCLUDED.
STATUS CODES 'P' - POWER DOWN, 'D' - DISABLED, 'B' - BAD STATUS, 'C' - CALIBRATION, '-' MINIMUM, '+' - MAXIMUM,
'R' - RATE OF CHANGE, 'E' - FIELD EXCEEDED, 'N' - DATA NOT FOUND, 'A' - CALIBRATION OUT OF TOLERANCE, ' ' - NO ERROR

Monthly Running Average Report
Run Date: 04/22/05 02:44
(1 Hour Rolling Averages)

SITE NAME: BURMAPLE : 53-071-0006
ADDRESS: 755 MAPLE STREET BURBANK
LAT/LONG: 046 12' 00" / 119 00' 30"
ELEVATION: 590

PARAMETER NAME: WD
PARAMETER CODE: 61102
METHOD: 50 UNITS: DEG

MONTH: March
YEAR: 2005
DECIMAL POSITIONER: 0
PROJECT: 01

Hourly Averages
Beginning Hour (PST)

DA	C	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	AVG	MAX	RDS	
01	TU	101	64	56	74	79	80	73	56	13	312	293	285	326	326	330	329	317	310	296	290	296	268	285	303	215	330	24	
02	WE	322	312	42	83	56	40	52	68	69	139	152	148	131	144	211	240	155	199	167	115	114	129	145	105	139	322	24	
03	TH	65	33	33	44	50	73	74	11	328	325	327	260	284	273	2	40	19	347	1	329	299	337	341	316	175	347	24	
04	FR	334	321	351	359	32	355	305	22	147	201	332	330	339	334	329	2	11	199	160	99	105	54	53	76	202	359	24	
05	SA	58	104	49	56	60	88	64	69	155	198	320	189	210	209	155	157	156	159	120	80	87	108	33	98	124	320	24	
06	SU	135	87	14	65	21	23	67	95	171	121	152	149	169	162	111	51	50	81	152	6	107	102	65	57	92	171	24	
07	MO	82	54	64	68	86	120	303	133	170	79	143	190	226	211	234	229	265	316	266	312	287	152	65	60	171	316	24	
08	TU	90	83	51	65	66	23	95	36	108	159	170	208	223	234	229	236	251	214	129	135	112	77	41	67	129	251	24	
09	WE	54	65	13	41	42	27	39	33	53	218	258	225	281	293	300	347	356	351	353	338	302	283	319	341	206	356	24	
10	TH	349	345	314	328	6	322	349	344	302	303	345	245	302	320	326	325	328	313	276	20	323	52	76	80	262	349	24	
11	FR	59	81	64	92	69	42	41	102	127	147	127	122	159	145	138	137	194	228	161	103	16	210	207	316	129	316	24	
12	SA	313	301	308	314	333	323	311	274	307	354	342	345	347	346	353	353	353	6	359	20	81	337	302	8	279	359	24	
13	SU	119	335	44	56	85	49	60	80	159	291	331	225	176	177	177	163	172	186	200	118	69	50	214	30	149	335	24	
14	MO	64	61	46	57	73	69	70	78	342	318	98	194	217	223	221	226	216	172	152	142	127	13	39	75	137	342	24	
15	TU	100	130	134	89	67	74	33	53	112	166	195	231	238	219	205	206	216	215	238	279	249	217	222	242	172	279	24	
16	WE	236	169	254	203	189	195	204	39	298	228	231	209	185	165	240	236	236	225	237	277	296	237	238	236	219	298	24	
17	TH	243	239	242	226	213	217	236	56	90	161	238	251	218	145	157	219	226	220	212	228	345	256	226	191	211	345	24	
18	FR	214	196	152	207	260	267	354	179	186	217	221	227	237	339	226	229	217	211	206	214	199	201	205	205	224	354	24	
19	SA	210	207	162	145	126	82	54	321	286	279	292	286	289	277	271	299	327	323	283	273	274	278	307	166	242	327	24	
20	SU	132	124	109	143	105	126	190	191	195	206	200	203	185	187	173	185	184	185	198	203	202	227	228	217	179	228	24	
21	MO	207	213	212	203	215	207	216	233	248	235	225	216	217	244	250	236	244	245	218	105	120	62	12	352	206	352	24	
22	TU	344	299	305	289	304	322	329	328	329	332	D	25	D	25	356	40	34	303	241	191	148	127	80	131	72	224	356	22
23	WE	60	339	328	7	351	357	0	4	1	4	353	357	358	341	332	332	341	333	339	332	334	340	343	343	260	358	24	
24	TH	329	332	336	284	333	344	332	328	303	339	324	293	253	246	195	217	159	143	135	136	135	153	106	115	245	344	24	
25	FR	83	57	71	88	98	146	163	147	134	137	132	149	163	216	190	161	124	140	144	146	139	135	125	126	134	216	24	
26	SA	119	124	125	118	84	88	116	260	72	115	123	142	142	147	152	145	131	251	158	149	145	116	121	122	136	260	24	
27	SU	106	120	70	72	297	258	274	156	144	151	171	185	202	217	185	174	163	194	189	201	179	197	210	259	182	297	24	
28	MO	232	226	243	225	224	231	226	218	224	219	225	230	231	235	240	235	233	237	240	236	232	233	190	146	226	243	24	
29	TU	160	153	152	172	213	219	228	230	225	229	232	235	234	224	225	222	222	222	227	225	225	224	223	225	214	235	24	
30	WE	223	219	219	221	219	219	225	231	229	234	273	281	279	285	270	245	264	292	286	244	198	158	152	142	234	292	24	
31	TH	126	94	97	141	142	119	125	130	137	135	133	108	93	128	87	55	39	26	56	119	166	243	281	269	127	281	24	
AVG		170	177	150	146	145	165	168	145	183	211	232	224	224	238	211	202	209	219	205	181	190	178	178	173	188			
MAX		349	345	351	359	351	357	354	344	342	354	353	357	358	356	353	353	356	351	359	338	345	340	343	352		359		
DAYS		31	31	31	31	31	31	31	31	31	31	30	30	30	31	31	31	31	31	31	31	31	31	31	31			742	

STANDARD DEVIATION 359

NOTES:

NOTES: *** INDICATE INVALID DATA OR LESS THAN 75 PERCENT VALID DATA INCLUDED.
STATUS CODES 'P' - POWER DOWN, 'D' - DISABLED, 'B' - BAD STATUS, 'C' - CALIBRATION, '-' MINIMUM, '+' - MAXIMUM,
'R' - RATE OF CHANGE, 'E' - FIELD EXCEEDED, 'N' - DATA NOT FOUND, 'A' - CALIBRATION OUT OF TOLERANCE, ' ' - NO ERROR

WSU Public Agricultural Weather System

Data Extracted:2005-04-27 16:00:15

[CBC-PASCO, on CBC Campus, Pasco, Wa](#)

Lat:46.2 Lng:119.1 elevation:339

Dates Range From 1995-06-22 To 2005-04-26

DATE	Total Precip
Gregorian	inches
-----	-----
2005-03-09	.00
2005-03-10	.00
2005-03-11	.00
2005-03-12	.00

Data Extracted:2005-04-27 16:00:15

[KENNEWICK \(Stewart\), Edison and 8th, Kennewick, Wa](#)

Lat:46.2 Lng:119.1 elevation:429

Dates Range From 1995-07-11 To 2005-04-26

DATE	Total Precip
Gregorian	inches
-----	-----
2005-03-09	.00
2005-03-10	.00
2005-03-11	.00
2005-03-12	.00

Data Extracted:2005-04-27 16:00:16

[MATHEWS CNR., 2 MI S of Mathews Corner, Wa](#)

Lat:46.4 Lng:119.1 elevation:905

Dates Range From 1989-01-01 To 2005-04-26

DATE	Total Precip
Gregorian	inches
-----	-----
2005-03-09	.00
2005-03-10	.00
2005-03-11	.00
2005-03-12	.00

Data Extracted:2005-04-27 16:00:16

[WSU TRI-CITIES, at WSU Tri-Cities Campus, Richland, Wa](#)

Lat:046. Lng:119.2 elevation:00317

Dates Range From 1995-06-14 To 2005-04-26

DATE	Total Precip
Gregorian	inches
-----	-----
2005-03-09	.00
2005-03-10	.00
2005-03-11	.00
2005-03-12	.00

WSU Public Agricultural Weather System

Data Extracted:2005-04-27 16:14:00

[CBC-PASCO, on CBC Campus, Pasco, Wa](#)

Lat:46.2 Lng:119.1 elevation:339

Dates Range From 1995-06-22 To 2005-04-26

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Mean Precipitation

1.0	.8	.6	.4	.5	.3	.3	.0	.2	.5	.9	1.1
-----	----	----	----	----	----	----	----	----	----	----	-----

Data Extracted:2005-04-27 16:14:04

[KENNEWICK \(Stewart\), Edison and 8th, Kennewick, Wa](#)

Lat:46.2 Lng:119.1 elevation:429

Dates Range From 1995-07-11 To 2005-04-26

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Mean Precipitation

1.0	.8	.6	.6	.8	1.0	.7	.8	1.1	.9	.9	1.2
-----	----	----	----	----	-----	----	----	-----	----	----	-----

Data Extracted:2005-04-27 16:14:08

[MATHEWS CNR., 2 MI S of Mathews Corner, Wa](#)

Lat:46.4 Lng:119.1 elevation:905

Dates Range From 1989-01-01 To 2005-04-26

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Mean Precipitation

.8	.7	.6	1.4	2.4	.9	1.5	1.0	.8	1.2	.8	.9
----	----	----	-----	-----	----	-----	-----	----	-----	----	----

Data Extracted:2005-04-27 16:14:12

[WSU TRI-CITIES, at WSU Tri-Cities Campus, Richland, Wa](#)

Lat:046. Lng:119.2 elevation:00317

Dates Range From 1995-06-14 To 2005-04-26

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Mean Precipitation

1.0	.9	.5	.5	.4	.3	.4	.0	.2	.4	.9	1.2
-----	----	----	----	----	----	----	----	----	----	----	-----

WSU Public Agricultural Weather System

Data Extracted:2005-04-27 16:19:30

[CBC-PASCO, on CBC Campus, Pasco, Wa](#)

Lat:46.2 Lng:119.1 elevation:339

Dates Range From 1995-06-22 To 2005-04-26

DATE	Total Precip Gregorian inches
-----	-----
2005-02-01	.00
2005-02-02	.00
2005-02-03	.00
2005-02-04	.00
2005-02-05	.00
2005-02-06	.02
2005-02-07	.00
2005-02-08	.00
2005-02-09	.00
2005-02-10	.00
2005-02-11	.00
2005-02-12	.00
2005-02-13	.00
2005-02-14	.00
2005-02-15	.00
2005-02-16	.00
2005-02-17	.00
2005-02-18	.00
2005-02-19	.00
2005-02-20	.00
2005-02-21	.00
2005-02-22	.00
2005-02-23	.00
2005-02-24	.00
2005-02-25	.00
2005-02-26	.00
2005-02-27	.00
2005-02-28	.03
	.05

Data Extracted:2005-04-27 16:19:30

[KENNEWICK \(Stewart\), Edison and 8th, Kennewick, Wa](#)

Lat:46.2 Lng:119.1 elevation:429

Dates Range From 1995-07-11 To 2005-04-26

DATE	Total Precip Gregorian inches
-----	-----
2005-02-01	.00
2005-02-02	.00
2005-02-03	.00
2005-02-04	.00
2005-02-05	.00
2005-02-06	.00

2005-02-07	.00
2005-02-08	.00
2005-02-09	.00
2005-02-10	.00
2005-02-11	.00
2005-02-12	.00
2005-02-13	.00
2005-02-14	.00
2005-02-15	.00
2005-02-16	.00
2005-02-17	.00
2005-02-18	.00
2005-02-19	.00
2005-02-20	.00
2005-02-21	.00
2005-02-22	.00
2005-02-23	.00
2005-02-24	.00
2005-02-25	.00
2005-02-26	.00
2005-02-27	.00
2005-02-28	<u>.03</u>
	.03

Data Extracted:2005-04-27 16:19:31
[MATHEWS CNR., 2 MI S of Mathews Corner, Wa](#)
 Lat:46.4 Lng:119.1 elevation:905
 Dates Range From 1989-01-01 To 2005-04-26

	Total
DATE	Precip
Gregorian	inches
-----	-----
2005-02-01	.00
2005-02-02	.00
2005-02-03	.00
2005-02-04	.00
2005-02-05	.00
2005-02-06	.00
2005-02-07	.00
2005-02-08	.00
2005-02-09	.00
2005-02-10	.00
2005-02-11	.00
2005-02-12	.00
2005-02-13	.00
2005-02-14	.00
2005-02-15	.00
2005-02-16	.00
2005-02-17	.00
2005-02-18	.00
2005-02-19	.00
2005-02-20	.00
2005-02-21	.00
2005-02-22	.00
2005-02-23	.00
2005-02-24	.00
2005-02-25	.00
2005-02-26	.00
2005-02-27	.00
2005-02-28	<u>NA</u>
	.00

Data Extracted:2005-04-27 16:19:31
[WSU TRI-CITIES, at WSU Tri-Cities Campus, Richland, Wa](#)
Lat:046. Lng:119.2 elevation:00317
Dates Range From 1995-06-14 To 2005-04-26

DATE	Total
Gregorian	Precip
-----	-----
2005-02-01	.00
2005-02-02	.00
2005-02-03	.00
2005-02-04	.00
2005-02-05	.00
2005-02-06	.00
2005-02-07	.00
2005-02-08	.00
2005-02-09	.00
2005-02-10	.00
2005-02-11	.00
2005-02-12	.00
2005-02-13	.00
2005-02-14	.00
2005-02-15	.00
2005-02-16	.00
2005-02-17	.00
2005-02-18	.00
2005-02-19	.00
2005-02-20	.00
2005-02-21	.00
2005-02-22	.00
2005-02-23	.00
2005-02-24	.00
2005-02-25	.00
2005-02-26	.00
2005-02-27	.00
2005-02-28	.07

WSU Public Agricultural Weather System

Data Extracted:2005-04-27 16:21:38

[CBC-PASCO, on CBC Campus, Pasco, Wa](#)

Lat:46.2 Lng:119.1 elevation:339

Dates Range From 1995-06-22 To 2005-04-26

DATE	Total Precip Gregorian inches
-----	-----
2005-03-01	.00
2005-03-02	.00
2005-03-03	.00
2005-03-04	.00
2005-03-05	.00
2005-03-06	.00
2005-03-07	.00
2005-03-08	.00
2005-03-09	.00
2005-03-10	.00
2005-03-11	.00
2005-03-12	.00

Data Extracted:2005-04-27 16:21:38

[KENNEWICK \(Stewart\), Edison and 8th, Kennewick, Wa](#)

Lat:46.2 Lng:119.1 elevation:429

Dates Range From 1995-07-11 To 2005-04-26

DATE	Total Precip Gregorian inches
-----	-----
2005-03-01	.00
2005-03-02	.00
2005-03-03	.00
2005-03-04	.00
2005-03-05	.00
2005-03-06	.00
2005-03-07	.00
2005-03-08	.00
2005-03-09	.00
2005-03-10	.00
2005-03-11	.00
2005-03-12	.00

Data Extracted:2005-04-27 16:21:39

[MATHEWS CNR., 2 MI S of Mathews Corner, Wa](#)

Lat:46.4 Lng:119.1 elevation:905

Dates Range From 1989-01-01 To 2005-04-26

Total

DATE	Precip
Gregorian	inches
-----	-----
2005-03-01	NA
2005-03-02	.00
2005-03-03	.00
2005-03-04	.00
2005-03-05	.00
2005-03-06	.00
2005-03-07	.00
2005-03-08	.00
2005-03-09	.00
2005-03-10	.00
2005-03-11	.00
2005-03-12	.00

Data Extracted:2005-04-27 16:21:39
[WSU TRI-CITIES, at WSU Tri-Cities Campus, Richland, Wa](#)
 Lat:046. Lng:119.2 elevation:00317
 Dates Range From 1995-06-14 To 2005-04-26

DATE	Total Precip
Gregorian	inches
-----	-----
2005-03-01	.00
2005-03-02	.00
2005-03-03	.00
2005-03-04	.00
2005-03-05	.00
2005-03-06	.00
2005-03-07	.00
2005-03-08	.00
2005-03-09	.00
2005-03-10	.00
2005-03-11	.00
2005-03-12	.00

WSU Public Agricultural Weather System

Data Extracted:2005-07-05 15:51:11

[CBC-PASCO, on CBC Campus, Pasco, Wa](#)

Lat:46.2 Lng:119.1 elevation:339

Dates Range From 1995-06-22 To 2005-07-04

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Mean Precipitation

1.0	.8	.6	.4	.5	.3	.3	.0	.2	.5	.9	1.1
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Data Extracted:2005-07-05 15:51:12

[KENNEWICK \(Stewart\), Edison and 8th, Kennewick, Wa](#)

Lat:46.2 Lng:119.1 elevation:429

Dates Range From 1995-07-11 To 2005-07-04

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Mean Precipitation

1.0	.8	.6	.6	.8	1.0	.7	.8	1.1	.9	.9	1.2
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Data Extracted:2005-07-05 15:51:13

[MATHEWS CNR., 2 MI S of Mathews Corner, Wa](#)

Lat:46.4 Lng:119.1 elevation:905

Dates Range From 1989-01-01 To 2005-07-04

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Mean Precipitation

.8	.7	.6	1.4	2.4	.9	1.5	1.0	.8	1.2	.8	.9
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Data Extracted:2005-07-06 11:54:04

[WSU TRI-CITIES, at WSU Tri-Cities Campus, Richland, Wa](#)

Lat:046. Lng:119.2 elevation:00317

Dates Range From 1995-06-14 To 2005-07-05

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Mean Precipitation

1.0	.9	.5	.5	.4	.3	.4	.0	.2	.4	.9	1.2
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APPENDIX C

STATUS REPORT

**2003 Best Available Control Measures
for Columbia Plateau Agriculture
January, 2004**

STATUS REPORT
2004 Best Available Control Measures
for Columbia Plateau Agriculture
January, 2005

Summary

This report fulfills Ecology's commitment to review and report annually on the use of Best Available Control Measures (BACM) in the Columbia Plateau. Ecology committed to provide such a report to the Environmental Protection Agency (EPA) in the revised Natural Events Action Plan (NEAP).

The level of Conservation Reserve Program (CRP) and Best Management Practice (BMP) use have increased from 70 to 78 percent in the priority counties of the Columbia Plateau. Seventy eight percent of the total farmable acres in these counties are now part of a United States Department of Agriculture (USDA) conservation program, use one of the minimum till practices, or contain 15-30% residue. Washington State finds this level of CRP and BMP implementation easily fulfills BACM criteria.

Background

EPA issued the policy on "Areas Affected by PM-10 Natural Events", or the Natural Events Policy (NEP), on May 30, 1996. Under the NEP, ambient PM₁₀ concentrations raised by unusually high winds may be treated as uncontrollable natural events when the dust originates from nonanthropogenic sources, or when the dust originates from contributing anthropogenic sources controlled with BACM. After natural events cause the PM₁₀ concentration to violate the PM₁₀ National Ambient Air Quality Standard, the NEP allows a state to develop a natural events action plan (NEAP) to deal with future exceedances.

A number of exceedances of the 24-hour standard for PM₁₀ were recorded in eastern Washington in the late 1980s and early 1990s. Examination of the exceedances showed a close correlation to high wind events and upwind agricultural fields were identified as the chief source of the wind-blown dust. The Washington State Department of Ecology (Ecology) developed the *Natural Events Action Plan for High Wind Events in the Columbia Plateau* in March 1998, and submitted it to Region 10 EPA, in accordance with the NEP.

The 1998 NEAP included Ecology's commitment to re-evaluate the NEAP at the end of 2001. The 2001 evaluation is embodied in the revised NEAP submitted to EPA in July, 2003. Several changes were incorporated into the revised NEAP including Ecology's commitment to review and report to EPA annual BACM implementation.

BACM Definition and Tracking Mechanism

The revised NEAP defines BACM for agricultural fields as USDA Conservation Title Programs supplemented by incentive based implementation of wind erosion conservation practices or BMPs. In short, the BACM definition recognizes the critical role of agricultural agencies in defining and instituting BACM on the Columbia Plateau. The primary agencies include those directly reporting to the USDA such as the Natural Resources Conservation Service (NRCS), the Farm Service Agency (FSA), and the Agricultural Research Service (ARS). Additional agricultural agencies include the Washington State Conservation Commission, local Conservation Districts and various agriculture related departments of the Washington State University. The NEAP acknowledges the combined expertise of these agencies and relies on the various programs of these agencies in implementing the conservation practices that constitute BACM.

For defining BACM, the NEAP uses the USDA's CRP program and the wind erosion BMPs encouraged by the NRCS and/or the Columbia Plateau Wind Erosion /Air Quality Project (referred to as the CP3). Use of these practices is tracked by the Conservation Technology Information Center's (CTIC), Core 4 program. The CTIC's Core 4 program tracks conservation tillage (No-Till, Ridge-Till, Mulch-Till) and conventional tillage (0-15% and 15-30% residue) practices and CRP enrollment on a county by county basis.

A full discussion on Ecology's BACM definition and tracking mechanism is found in the revised NEAP.

STATUS REPORT: 2004 BACM

The 2003 NEAP determined BACM is implemented in the Columbia Plateau based on 68 percent use of conservation practices. Attachment 1 shows the implementation of conservation practices for the seven priority counties, as defined in the NEAP. These counties have the lowest rainfall and thus are the most susceptible to windblown dust.

Data evaluated is for the year 2004. The evaluation includes data on CRP, minimum tillage, and residue remaining on the field for the lowest rainfall counties of the Columbia Plateau - counties Ecology finds to be high priority in terms of addressing wind blown dust. Ecology identified Adams, Douglas, Franklin, Grant and Lincoln as priority counties in the 1998 NEAP. Benton and Walla Walla counties were added to the list more recently. The Core 4 data shows 78 percent of the priority counties' total farmable acres are in a USDA conservation program, use one of the minimum till practices, or contain 15-30% residue.

Similarly, attachment 2 shows the implementation of conservation practices for all counties of the Columbia Plateau NEAP. The data shows 79 percent use of conservation practices throughout the Columbia Plateau.

The results are consistent with the 2003 NEAP determination and show that we continue to meet BACM requirements.

Additional Efforts to Enhance Wind Erosion Conservation Measures

Ecology continues to work with the various agricultural agencies to enhance the use of conservation practices in the Columbia Plateau. In doing so, implementation of wind erosion conservation measures is enhanced beyond the tracked and reported by the Core 4.

Enhancing Wind Erosion Conservation Measures in Priority Counties of the Columbia Plateau:

Ecology completed a contract with the Benton Conservation District (BCD) for tasks associated with a special funds grant from the EPA. The project a) provided immediate, temporary treatment to critical areas and, b) promoted conservation buffers as options for longer-term or permanent wind erosion control measures. Results of the grant include the following:

1.) To date, 14 different farm operations used the straw mulcher to apply roughly 771 tons of grass straw to about 520 acres of "hot spots" (highly erodible areas). An additional 300 tons was applied without project-supplied cost-share straw. In total, over 1000 tons of straw were applied to highly erodible areas in an effort to protect against the occurrence of windblown dust. Even though all the cost-share money for this project has been expended, several growers have shown continued interest in using the straw mulcher.

2.) The BCD, USDA-Natural Resources Conservation Service, Ecology, and the Benton Clean Air Authority conducted an education and outreach program that focused on wind erosion conservation buffers as a longer-term solution to wind erosion. Material covered included the Natural Events Policy, Washington's Natural Events Action Plan and the importance of implementing Best Available Control Measures. The meeting was attended by thirty state natural resource agency staff and dryland wheat growers from the Horse Heaven Hills. The effort was an adjunct to a three-day technical workshop (May 17-20, 2004) that focused on implementing wind erosion conservation measures in the Columbia Plateau. The NRCS supplemented funds from this grant to conduct the workshop. The attached news release announcing the spring 2004 workshop was published in the TriCity Herald and the Spokesman Review.

Numerous growers responded favorably to implementing conservation buffers on a trial basis. Ecology, the BCD and EPA will develop a grant to facilitate such an effort in the spring of 2005.

3.) Dryland growers also encouraged the agencies involved with this grant to consider advocating for increased CRP eligibility in the HHHs. In November, 2002, the BCAA, the BCD and others wrote letters to the Washington State FSA regarding CRP eligibility in the HHH. The BCAA expressed their view that the HHH dryland wheat region should receive greater consideration as an air quality conservation priority area for the purpose of CRP eligibility. In support of their view, the BCAA points to air quality concerns due to windblown dust impacting the Tri-Cities and the Wallula, Washington areas and the HHH as an identified source area. Ecology's Air Quality Program wrote to the FSA, as well, supporting BCAA's position.

Prior to this grant (06/2002), roughly 74,000 acres were enrolled in the USDA CRP. As of the most recent enrollment (12/2004), over 120,000 acres were enrolled – of which – 108,000 acres are in the HHHs. The most recent signup took Benton County up to the federally mandated county limit that allows no more than 25% of eligible cropland in CRP. As a result, numerous growers wanting to enroll cropland were turned away.

4.) Staff from the BCD, the NRCS, Ecology's AQ Program and several dryland growers from the HHHs participated in NRCS's local work group process regarding criteria and eligibility for EQIP funding. These levels of involvement lead directly to the following changes in criteria and eligibility that will facilitate increased implementation of wind erosion conservation measures in the HHHs.

- ☐ Air quality is elevated as a natural resource concern – now second only to water quality.
- ☐ Dryland farmers/air quality projects no longer must compete against ALL resources concerns identified in the three-county workgroup. The initial screening/funding phase will only consider dryland farmers/air quality projects competing directly with one another.
- ☐ Criteria for air quality projects now includes increased points for projects that include:
 - No-Till (applicant gets more points for this(52) than direct seed (42) and mulch till (32)), and
 - full season chemical fallow.
- ☐ bonus points are awarded for projects that include buffers and/or involve a pool of contiguous/adjacent landowners.

As evidenced above, this grant was tremendously successful. The quantitative outcomes are discussed in large part above. Moreover, this multi-agency effort significantly raised awareness regarding windblown dust and the critical importance of implementing appropriate controls to reduce emissions. To this end, both the growers and the agencies involved with this grant are willing and anxious to continue such efforts. Numerous growers are

willing to install long-term (10 years to permanent) wind erosion buffers if funding support is available. The BCD and Ecology look forward to supporting their interest via additional EPA grant funds.

Additional Ecology Grants:

As presented in the 2003 Best Available Control Measures Status Report, Ecology's Water Quality Program is funding two projects that enhance wind erosion control measures on the Columbia Plateau. The objectives of both water and wind erosion control are to prevent or minimize soil particle detachment and entrainment by the medium (air or water.) Consequently, conservation practices to reduce the effects from both types of erosion are substantially similar. For this reason, air quality is improved when conservation measures to reduce water erosion are increased.

Both the Spokane Conservation District Conservation Tillage Program and the Franklin Conservation District Wheat Erosion Buffer Program continue. Additional details regarding these two programs are found in the 2003 Best Available Control Measures Status Report and at <http://www.sccd.org/sccd/productionag/>.

The Conservation Security Program and the Moses Coulee Watershed:

The Farm Security and Rural Investment Act of 2002 (2002 Farm Bill) amended the Food Security Act of 1985 to authorize the Conservation Security Program (CSP). The CSP is a voluntary program administered by USDA's Natural Resources Conservation Service (NRCS). It is designed to support on-going stewardship of private agriculture lands by providing payments for maintaining and enhancing natural resources. CSP identifies and rewards growers who are meeting the highest standards of conservation and environmental management on their operation.

Nationally, eighteen watersheds were selected to participate in the CSP in 2004 – one of which is the Moses Coulee Watershed. Located in Central Washington, the Moses Coulee includes portions of both Douglas and Grant counties. Eligible growers that apply and are selected will receive funding support to maintain and enhance conservation management practices on their operations. NRCS reports that air quality management practices are among the most important practices targeted for enhancement in the Moses Coulee through the CSP. Additional information regarding the CSP and the Moses Coulee Watershed are attached.

Conclusion

Ecology and the identified agricultural agencies continue to carry out the Columbia Plateau NEAP. Ecology finds the level of CRP and BMP implementation identified in this report continues to fulfill BACM criteria. Ecology will continue to document natural events and flag exceedances when justified under the terms of the 2003 NEAP.